

Mineral-Insulated Metal Sheathed Thermocouple Probes

Bare Leads Mineral-Insulated Cable

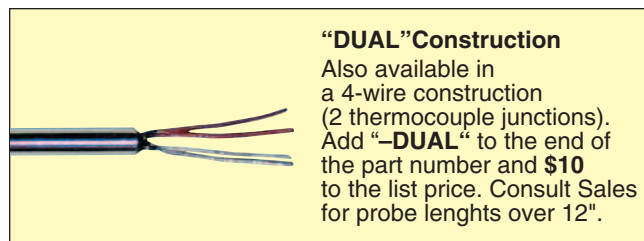
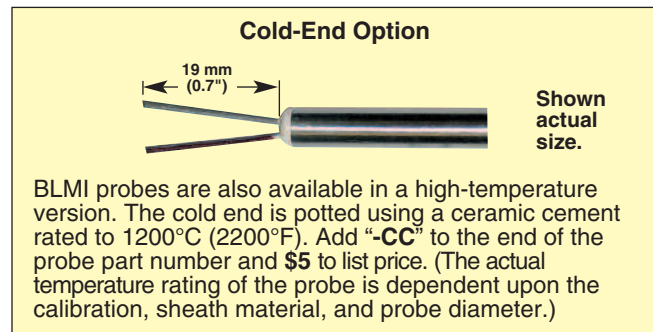


See page A-43 to A-48.

BLMI Series
Starts at
\$22

Epoxy sealed "cold end",
rated to 175°C (350°F).
Bare 19 mm (¾") leads.

BLMI-XL-14U-12, \$31, shown
smaller than actual size.



BLMI Probes Deliver Consistent, Superior Quality Through Automated Manufacturing

Thermocouple users demand products able to deliver accurate measurements over long lifetimes. They also want proven track records from the probes they buy. With automated manufacturing and testing systems, these customers can be assured of consistently high-quality products, and the ability to track the manufacturing process and retrieve the initial calibration values and material sources.

NewportUS bare leads MI (BLMI) finished probes begin with our own high-purity magnesium oxide thermocouple cable. This mineral-insulated, metal-sheathed cable uses SLE-class materials throughout its construction.

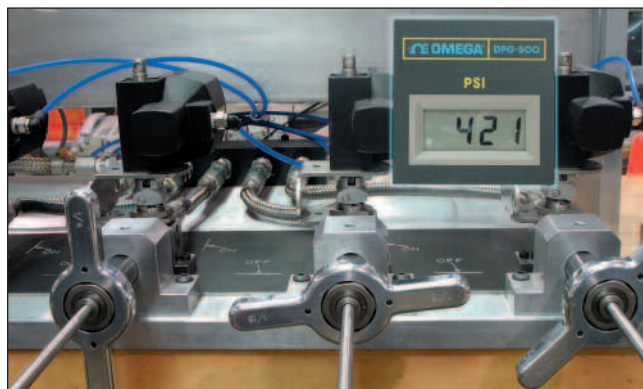
For some applications, such as ceramic kilns, BLMI probes combined with the accessories shown on these pages offer expedient and accurate temperature solutions to 1204°C (2200°F) with XL probes. BLMI probes meet and exceed the rigorous standards for thermocouples, including ANSI/ASTM-E-230, ASTM-E-608, and the British/European BS/EN 61515 standard. The combined BLMI probe with Super OMEGACLAD® XL sheathing produces superior measurement results.

BLMI Series probes are built and quality tested on our automated manufacturing lines. OMEGACLAD® mineral-insulated, metal-sheathed thermocouple cable is cut, stripped, beaded, closed, potted, and tested by equipment designed and built in-house exclusively for these tasks.

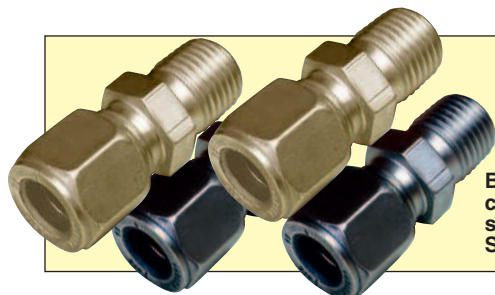
Programmable controller-based automation used in manufacturing BLMI probes ensures the same high quality from lot to lot—from cutting to final test. After final QA tests for insulation resistance and weld and seal leakage [nitrogen pressure test at 2.5 MPa (362 psi)], our assigns identification codes to each device, which can be used to track products through the entire manufacturing process.



To pass the IR test according to ASTM specs, BLMI probes must achieve at least a 1 GΩ reading. The unit under test scored 50 GΩ.



Probes are subjected to a leak test at the welded thermocouple junction (hot end) with a pressurization greater than 2.5 MPa (362 psi).



BRLK and SSLK
compression fittings
starting at \$6.
See page A-127

Junction Types

Grounded



Exposed



Ungrounded



Super OMEGACLAD® XL
“BLMI” probes used in
ceramic kiln firing
applications. For more
information on Super
OMEGACLAD® XL probes,
see page A-43.



Accessories

Ceramic terminal blocks, start at
\$3, see page B-10.



Compensated
spade lugs,
\$13 pk of 20,
see page G-56.



TX93A, ultra
miniature
transmitters, \$74,
see page N-38.

Fiberglass sleeving
for insulating bare wire
up to 480°C (900°F),
\$0.35/ft, see page A-144.



- ✓ J, K, T, Calibrations in Stock—
Also Available in E and N
- ✓ 304 SS, 310 SS, 316 SS, Inconel® 600,
and Super OMEGACLAD® XL Sheaths
- ✓ Exposed, Grounded, and Ungrounded
Hot Junctions
- ✓ Exposed 19 mm (0.7") Bare Conductors
- ✓ Epoxy or Ceramic Cement Cold-End Seal
- ✓ Standard Lengths, 150 or 300 mm
(6 or 12")—Custom Lengths Available
- ✓ Vast Selection of Termination
Accessories—See Window to the Right
- ✓ Metric Diameters and Lengths
Available—Contact Sales for Details

Discount Schedule

1 to 10	.....	Net
11 to 24	.....	10%
25 to 49	.....	20%
50 to 99	.....	25%
100 and over	.....	Consult Sales

MOST POPULAR MODELS HIGHLIGHTED!

To Order (Specify Model Number)

Calibration ANSI Color	Sheath Material	Sheath Dia. mm (in)	Upper Temperature Guidelines °C (°F) T/C Junction	Model No.	Price [50 mm and 300 mm (6 and 12")]		Price Add'l 300 mm (12") MI Cable
					G*/E*	U*	
K	304 SS	1/16 (1.59)	899 (1650)	BLMI-304-K-116(*)-(**)	\$22	\$24	\$1.55
	304 SS	1/8 (3.18)	899 (1650)	BLMI-304-K-18(*)-(**)	22	24	1.85
	304 SS	3/16 (4.78)	899 (1650)	BLMI-304-K-316(*)-(**)	23	25	3.15
	304 SS	1/4 (6.35)	899 (1650)	BLMI-304-K-14(*)-(**)	26	28	5.00
K	INC 600	1/16 (1.59)	921 (1690)	BLMI-INC-K-116(*)-(**)	22	24	1.55
	INC 600	1/8 (3.18)	1071 (1960)	BLMI-INC-K-18(*)-(**)	22	24	3.15
	INC 600	3/16 (4.78)	1149 (2100)	BLMI-INC-K-316(*)-(**)	23	25	4.35
	INC 600	1/4 (6.35)	1149 (2100)	BLMI-INC-K-14(*)-(**)	26	28	7.50
K	XL	1/16 (1.59)	1038 (1900)	BLMI-XL-K-116(*)-(**)	25	27	1.70
	XL	1/8 (3.18)	1149 (2100)	BLMI-XL-K-18(*)-(**)	25	27	3.50
	XL	3/16 (4.78)	1204 (2200)	BLMI-XL-K-316(*)-(**)	26	28	4.80
	XL	1/4 (6.35)	1204 (2200)	BLMI-XL-K-14(*)-(**)	29	31	8.30
J	304 SS	1/16 (1.59)	441 (825)	BLMI-304-J-116(*)-(**)	22	24	1.55
	304 SS	1/8 (3.18)	521 (970)	BLMI-304-J-18(*)-(**)	22	24	1.85
	304 SS	3/16 (4.78)	621 (1150)	BLMI-304-J-316(*)-(**)	23	25	3.15
	304 SS	1/4 (6.35)	721 (1330)	BLMI-304-J-14(*)-(**)	26	28	5.00
T	304 SS	1/16 (1.59)	260 (500)	BLMI-304-T-116(*)-(**)	22	24	1.55
	304 SS	1/8 (3.18)	316 (600)	BLMI-304-T-18(*)-(**)	22	24	1.85
	304 SS	3/16 (4.78)	371 (700)	BLMI-304-T-316(*)-(**)	23	25	3.15
	304 SS	1/4 (6.35)	371 (700)	BLMI-304-T-14(*)-(**)	26	28	5.00

* Specify junction (G)rounded, (E)xposed, or (U)ngrounded. ** Probe length 6" (150 mm), 12" (300 mm), 18" (450 mm) are stock.

Ordering Example: BLMI-XL-K-316-G-24, mineral-insulated grounded probe, 24" length, \$26 + 4.80 = \$30.80.